

## SECTION - C (DESCRIPTIVE QUESTIONS)

Q-16: Factorize any Five of the following.

(i)  $r^4 + 4s^4$

(iv)  $x^4y^2 - 2 + \frac{x^4y^2}{x^4y^2}$

(v)  $x^4y^2 - 2 + \frac{x^4y^2}{x^4y^2} + y^4(z^2 - x^2) + z^4(x^2 - y^2)$

(ii)  $a^3 - a^2 + 2$

(v)  $1 - x^2 - y^2 + 2xy$

(iii)  $27x^3 - 1 + 8y^6 + 18xy^2$

(vi)  $5(2x+y)^4 - 13(2x+y)^2 - 6$

Q-17: (a) Construct a  $\triangle ABC$  such that  $m\overline{AB} = 4.5$  cm,  $m\overline{BC} = 5$  cm,  $m\angle B = 60^\circ$  and Also draw its circumscribed circle.

(b) Find all the values of trigonometric ratios of  $45^\circ$ .

Q-18 (a) if  $A = \begin{vmatrix} 2 & 3 \\ 4 & 5 \end{vmatrix}$  then prove that  $|A^{-1}| = \frac{1}{|A|}$

(b) Reduce to a single term.

$$\frac{1}{3} \log a (x-1)^3 + \frac{10}{9} \log a (x+1) - \frac{1}{9} \log a (x+1)$$